4ipnet®
for your IP network

Quick Installation Guide

WHG311 V1.03

Secure WLAN Controller

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FCC Caution

This equipment has been tested and proven to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Preface

This Quick Installation Guide provides instructions and reference material for getting started with the 4ipnet WHG311 Secure WLAN Controller. This guide will show you how to install WHG311 and get your network up and running with minimum configurations.

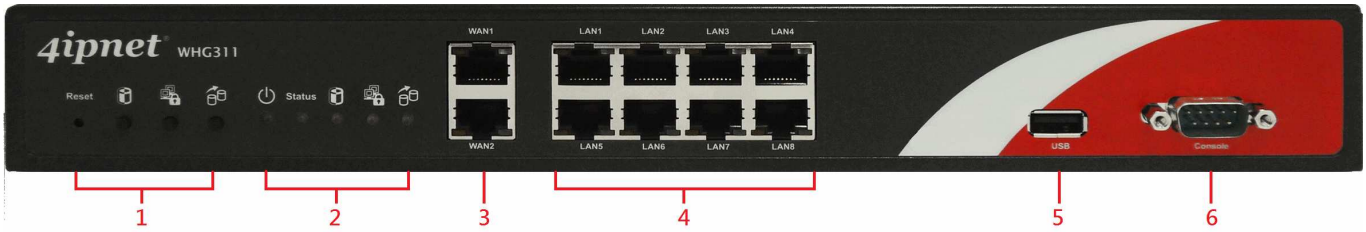
Package Contents

1. WHG311 x 1
2. CD-ROM (User's Manual and QIG) x 1
3. Quick Installation Guide (QIG) x 1
4. RS-232 DB9 Console Cable x 1
5. Ethernet Cable x 1
6. Power Adapter (12VDC, 2A) x 1

It is highly recommended to use all the supplies in the package instead of substituting any components by other suppliers to guarantee best performance.

System Overview

Front Panel



1. **Function Buttons:** There are four function buttons.
   - **Reset:** Press and hold the Reset button for over 3 seconds and status of LED on front panel will start to blink, release button at this stage to restarting the system. Press and hold the Reset button for more than 10 seconds and status of LED on the front panel will turn from blinking to off, release at this stage to reset the system to default configuration.
   - **Quick-Restore:** This button is the firmware switch button. Press this button while system is powering up and release when the “Quick-Restore” LED lights up, the system will switch to the other firmware image and boot up with that firmware.
   - **Quick-VPN:** This button is for establishing a site to site VPN tunnel with minimal pre-configurations at a push of a button. Please refer to user’s manual for detailed operation instructions.
   - **Quick-Maintenance:** This button allows admin to copy an exact FW & Configurations from controller A to controller B except for MAC address. Please refer to user’s manual for detailed operation instructions.
2. **LED Displays:** There are five LED light displays.
   - **Power:** Power LED lights up as constant yellow green when power supply is on.
   - **Status:** Status LED is Blue. Blinking indicates that system OS is booting up, when lit up constantly indicates that the system is ready for operation.
   - **Quick-Restore:** This is used to indicate that the system will now switch to the other F/W partition for operation.
   - **Quick-VPN:** This LED is used for indicating the status of establishing site to site VPN tunnel with minimal pre-configurations at a push of a button. Please refer to user’s manual for detailed status description.
   - **Quick-Maintenance:** This LED is for indicating the status of copying FW & Configurations from controller A to controller B except for MAC address. Please refer to user’s manual for detailed status description.
3. **WAN1/ WAN2:** Two WAN port (10/100/1000 Base-T RJ-45) uplinks to the external network, such as the ADSL Router from your ISP (Internet Service Provider).

4. **LAN1 ~ LAN8:** Client machines or switch connect to WHG311 via LAN ports (10/100/1000 Base-T RJ-45).
5. **USB:** Function Reserved for future use.
6. **Console:** The system can be configured via a serial console port. The administrator can use a terminal emulation program such as Microsoft's Hyper Terminal to login to the configuration console interface to change admin password or monitor system status, etc.

Rear Panel

1. **Power Supply Socket:** Connect the power adaptor to the power socket (Input: DC+12V).

Hardware Installation

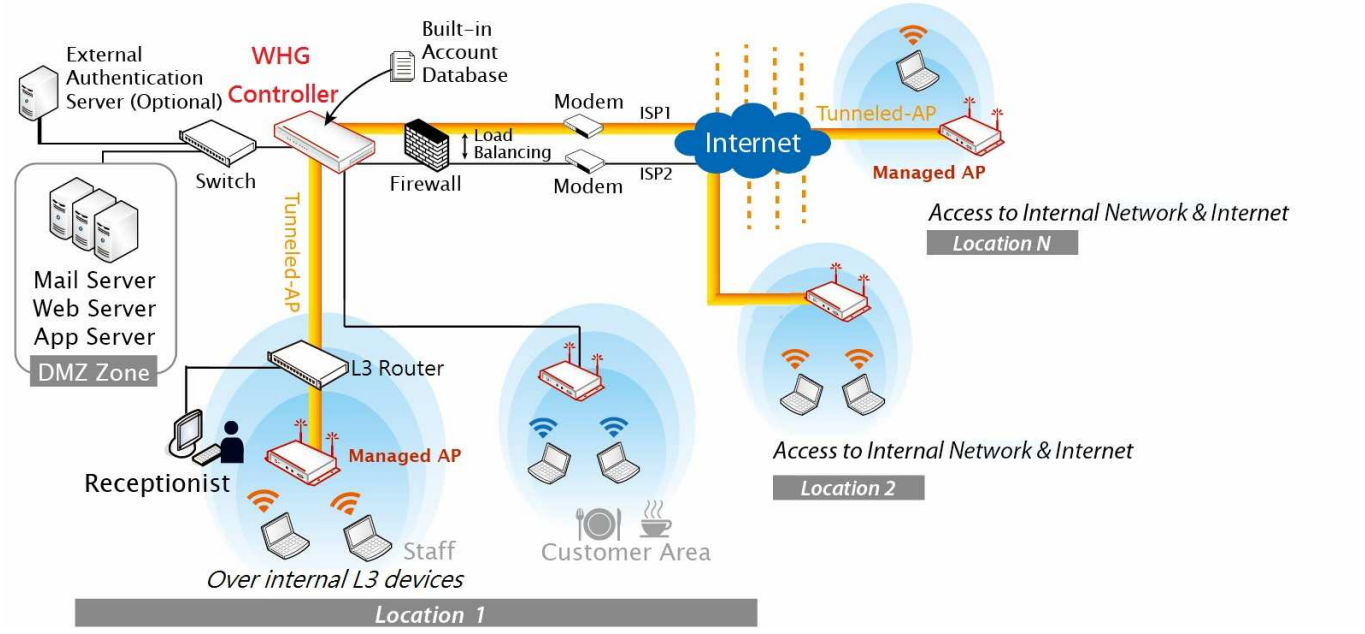
Please follow the following steps to install WHG311:

1. Connect the power to the power socket on the rear panel.
2. The Power LED should be on to indicate a proper connection.
3. Connect an Ethernet cable to the WAN1 Port on the front panel. Connect the other end of the Ethernet cable to an xDSL/cable modem, or a switch/hub of an internal network. The LED of this port should be on to indicate a proper connection.
4. Connect an Ethernet cable any LAN Port on the front panel. Connect the other end of the Ethernet cable to an administrator PC for configuring the WHG311 system, an AP for extending wireless coverage, a switch for connecting more wired clients, or a client PC. The LED of this LAN port should be on to indicate a proper connection.

Getting Started

< System Concept >

4ipnet WHG311 is capable of managing user authentication, authorization and accounting. The user account information is stored in the local database or a specified external database server. Featured with user authentication and integrated with external payment gateway, WHG311 allows users to easily pay the fee and enjoy the Internet service using credit cards through Authorize.net, PayPal, SecurePay, or WorldPay. With centralized AP management feature, the administrator does not need to worry about how to manage multiple wireless access point devices. Furthermore, WHG311 introduces the concept of Service Zones - multiple virtual networks, each with its own definable access control profiles. This is very useful for hotspot owners seeking to provide different customers or staff with different levels of network services. The following diagram is an example of WHG311 set to manage the Internet and network access services centrally over different physical locations.

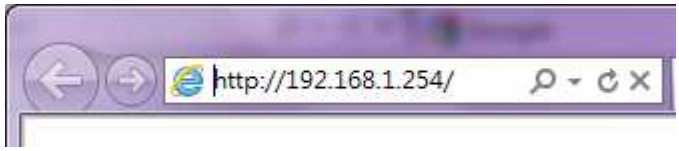


< Web Management Interface >

4ipnet WHG311 supports web-based configuration. Upon the completion of hardware installation, WHG311 can be configured via web browsers with JavaScript enabled such as Internet Explorer version 6.0 and above or Firefox.

1. To access the web management interface, connect a PC to any **LAN Port**, and then launch a browser.
   Make sure you have set DHCP in TCP/IP of your PC to get an IP address automatically.

2. Next, enter the gateway IP address of WHG311 at the address field. The default gateway IP address is***"https://192.168.1.254"*** (**"https"** is used for a secured connection).



3. The administrator login page will appear. Enter ***"admin"***, the default username, and ***"admin"***, the default password, in the User Name and Password fields. Click ***Enter*** to log in.

4. After a successful login, a System Home page will appear on the screen. From the Home Page, network administrator can navigate to "Setup Wizard", "Quick Links", "System Overview", and "Main Menu".

For the first time, if WHG311 is not using a **trusted SSL certificate**, there will be a **"Certificate Error"**, because the browser treats WHG311 as an illegal website. Please press **"Continue to this website"** to continue. The default user login page will then appear in the browser.

Windows Internet Explorer
https://172.30.0.1
File Edit View Favorites Tools Help
Favorites
There is a problem with this website's security certificate.
The security certificate presented by this website was not issued by a trusted certificate authority.
The security certificate presented by this website was issued for a different website's add
Security certificate problems may indicate an attempt to fool you or intercept any data yo send to the server.
We recommend that you close this webpage and do not continue to this website.
Click here to close this webpage.
Continue to this website (not recommended).
More information

If you can't get the login screen, the reasons may be: (1) The PC is set incorrectly so that the PC can't obtain the IP address automatically from the LAN port; (2) The IP address and the default gateway are not under the same network segment. Please use default IP address such as 192.168.1.xxx in your PC and then try it again. For the configuration on PC, please refer to ***WHG311 User's Manual, "Network Configuration on PC & User Login".***

Common Settings

< Setup Wizard >

WHG311 provides a **Setup Wizard** for quick configuration. To quickly configure WHG311 by using the **Setup Wizard**, click on the **Setup Wizard** button to start the configuration process.

Step 1: General

- Enter a new password in the ***New Password*** field, and re-enter it again in the ***Verify Password*** field (a maximum of 20 characters and no spaces allowed in between).
- Select an appropriate time zone from the ***Time Zone*** drop-down list box to set up the system time.
- Click ***Next*** to continue.

For security concern, it is strongly recommended to change the administrator's password

Step 2: WAN1 Interface

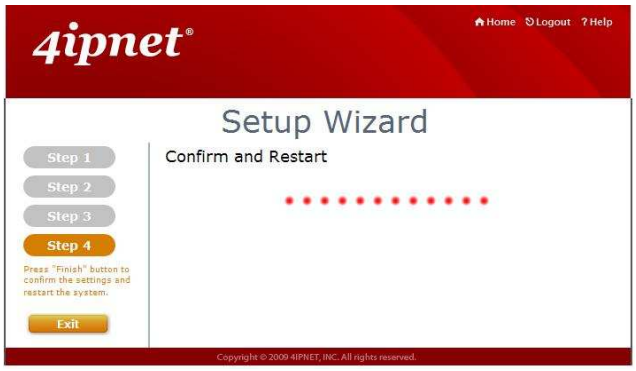
For setting up both wired WAN and wireless LAN functions:

- Select a proper type of Internet connection for WAN1 interface from the following three available connections: **Static**, **Dynamic**, or **PPPoE**. Your ISP or network administrator can advise on the connection type available to you. Below depicts an example for **Dynamic**.
- Click ***Next*** to continue.

Step 3: Local User Account (Optional)

New local accounts can be created and added into the database via this optional function. If local user accounts are not required, click ***Skip*** to go directly to **Step 4**. However, It is recommended to create at least one local user account in order to verify the system's readiness upon completion of this **Setup Wizard**.

- Enter the *Username* (e.g. **"testuser**) and *Password* (e.g. **"testuser"**) to create a new local account.
- Click ***Next*** to continue.
- More local accounts can be added by clicking the ***Back*** button in **Step 4**.



Step 4: Confirm and Restart

- Click ***Finish*** to save current settings and restart the system.

- A confirmation dialog box will then appear. Click ***OK*** to continue.

- A **Confirm and Restart** message will appear on the screen during the restarting process. Please do not interrupt the system until the Administrator Login Page appears.

Note: The system is trying to locate a DNS server at this stage. Therefore, a longer startup time is required if the configured DNS cannot be found.

- When the following Administrator Login Page appears, it means the restart process is now completed.

< User Login >

To verify whether the configuration of the new local user account(s) created via the **Setup Wizard** has been completed successfully:

1. Connect a client device (e.g. laptop, PC) to any LAN Port of WHG311. The device will obtain an IP address automatically via DHCP.
2. Open a web browser on a client device, access any URL, and then the default **User Login Page** will appear.
3. Enter the *Username* and *Password* of a local user account previously generated via Setup Wizard (e.g. **"testuser@local"** as the *Username* and **"testuser"** as the *Password*); then Click ***Login***.

Note:

1. WHG311 supports multiple authentication options including built-in local user database and external authentication database (e.g. RADIUS). The system will automatically identify which authentication option is used from the full username entered.
2. The format of a full (valid) username is **userid@postfix**, where **"userid"** is the user ID and **"postfix"** is the name of the selected authentication option.
3. **Exception:** The postfix can be omitted only when the default authentication option is used. For example, **"LOCAL"** is the default authentication option at this system; therefore, you may enter either **"testuser"** or **"testuser@local"** in the *Username* field.

Congratulations!

The Login Success Page will appear after a client has successfully logged into WHG311 and has been authenticated by the system.

The appearance of Login Success Page means that WHG311 has been installed and configured properly.

< Service Zone & AP Management >

4ipnet WHG311 has introduced an important new concept called **"Service Zone"**. For how to set up Service Zones, please refer to the User's Manual.

WHG311 can centrally manage multiple access points (APs). For how to set up the **"AP Management"** feature, please refer to the **"AP Management"** section of the User's Manual.

For further configuration and information, please refer to the User's Manual.

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